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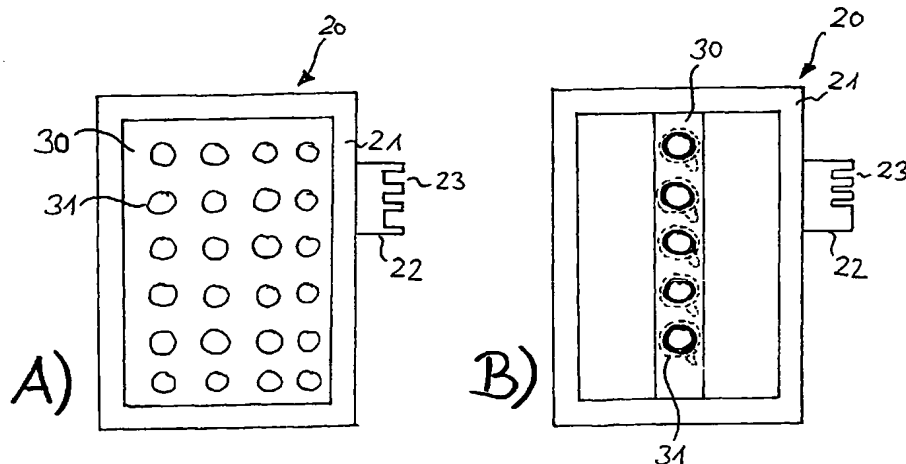
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[Fortsetzung auf der nächsten Seite]

(54) Title: SAMPLE HOLDER FOR A RECEPTION DEVICE RECEIVING BIOLOGICAL OBJECTS AND MICROSCOPE
SYSTEM DESIGNED TO OPERATE USING ONE SUCH SAMPLE HOLDER

(54) Bezeichnung: HALTER FÜR EINE AUFNAHMEVORRICHTUNG ZUM AUFNEHMEN VON BIOLOGISCHEN OBJEK-
TEN UND MIKROSKOPSYSTEM FÜR DEN BETRIEB MIT EINEM DERARTIGEN HALTER



(57) Abstract: The invention relates to a sample holder (20) for reception devices receiving biological objects which can be used, for example, as collecting devices (30) in laser microdissection systems. Said sample holder (20) has a coding (23) by which means it can be clearly identified in the laser microdissection system, in order to then be able to correctly allocate biological objects (43) to be dissected to individual reception containers (31) of the identified reception device (30) or the identified sample holder (20), in such a way that a fully automatic microdissection process can be carried out.

[Fortsetzung auf der nächsten Seite]

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English Translation of the Annexes of the International
Preliminary Examination Report (Art. 34 Amendment)

PATENT CLAIMS

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1. Laser microdissection system with a microscope (1) for
observing a biological material (43) located on an object
carrier (3),
with a laser device (4) for excising a biological object
10 from the biological material (43) by means of laser
radiation, and
with at least one holder (20) that is designed for use
in the laser microdissection system in such a way that
it can hold a receptacle device (30) provided for
15 receiving the biological object excised from the
biological material, for operation with the laser
microdissection system,
characterised in that
the at least one holder (20) has a coding (23) that
20 identifies the type of receptacle device (30),
identification means (32, 33) are provided for
identifying the receptacle device (30) held in each case
by the holder (20) by evaluating the coding (23) of the
holder (20), and
25 control means (7) are provided and are designed in such
a way that, depending on the receptacle device (30)
identified in each case, they provide selection
functions specific to the receptacle device for the
allocation of individual biological objects to be
30 excised from the biological material to individual
receptacle containers (31) of the receptacle device (30)
identified in each case.

2. Laser microdissection system according to claim 1,
characterised in that the identification means (32, 33)
are designed for the optical scanning of the coding (23)
5 of the holder (20).
3. Laser microdissection system according to claim 1 or
claim 2, characterised in that the identification means
(32, 33) are designed for the inductive scanning of the
10 coding (23) of the holder (20).
4. Laser microdissection system according to one of claims
1 to 3, characterised in that the identification means
(32, 33) are designed for the capacitative scanning of
15 the coding (23) of the holder (20).
5. Laser microdissection system according to one of claims
1 to 4, characterised in that the control means (7) are
designed in such a way that, depending on the identified
20 receptacle device (30), they form an image of the
identified receptacle device (30) on a reproduction
device (3).
6. Laser microdissection system according to one of claims
25 1 to 5, characterised in that the control means (7) are
designed in such a way that, depending on the identified
receptacle device (30), they provide selection functions
specific to the receptacle device for the automatic
manipulation of the receptacle device (30).
- 30 7. Laser microdissection system according to one of claims
1 to 6, characterised in that the control means (7) are

designed in such a way that, depending on the identified receptacle device (30), they manipulate in a manner specific to the receptacle device an adjustment device (2) of the microscope system to which the holder (20) is to be coupled, in order to position the receptacle device (30) in the microscope system with the aid of the adjustment device (2).

8. Laser microdissection system according to one of claims 1 to 7, characterised in that image recording means for recording an image of the receptacle device (30) are provided, and whereby the control means (7) are designed in such a way that, depending on the identified receptacle device (30), they manipulate the image recording means in a manner specific to the receptacle device in such a way that these automatically remove the receptacle device (30) in order to record an image of the receptacle device (30).

9. Laser microdissection system according to claim 8, characterised in that the control means (7) are designed in such a way that after a dissection procedure they automatically manipulate the image recording means in order to record the image of the receptacle device (30) at least in a region of those receptacle containers (31) in which the biological objects are dissected.

10. Laser microdissection system according to one of claims 1 to 9, characterised in that the control means (7) are designed in such a way that, depending on the identified receptacle device (30), they prepare in a manner specific to the receptacle device a dissection protocol

for a dissection work sequence carried out with respect to the receptacle device (30).

11. Laser microdissection system according to one of claims
5 1 to 10, characterised in that the holder (20) comprises a frame (21) for holding the receptacle device (30).
12. Laser microdissection system according to one of claims
1 to 11, characterised in that the coding (23) is an
10 optically scannable coding.
13. Laser microdissection system according to claim 12,
characterised in that the coding (23) comprises comb-
like projections that extend from the holder (20),
15 whereby the receptacle device (30) is identified by the arrangement of the projections.
14. Laser microdissection system according to claim 12 or
claim 13, characterised in that the coding (23)
20 comprises a barcode.
15. Laser microdissection system according to one of the
preceding claims, characterised in that the coding (23)
comprises an inductive coding.
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16. Laser microdissection system according to one of the
preceding claims, characterised in that the coding (23)
comprises a capacitative coding.
- 30 17. Laser microdissection system according to claim 15 or
claim 16, characterised in that the coding (23)
comprises a transponder.

18. Laser microdissection system according to one of the preceding claims, characterised in that the holder (20) is designed to hold a receptacle device (30) that is selected from a group comprising a cap, a tube, a microtitre plate and arrangements thereof.